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Attorney Docket No. 16781/276/BEDL

In re patent application of      Allowed: May 31, 1994  
Daniel CAPUT et al.              Batch: B21  
Serial No. 07/920,519              Group Art Unit: 1814  
Filed: July 28, 1992              Examiner: D. Schmickel  
For: URATE OXIDASE ACTIVITY PROTEIN, RECOMBINANT GENE  
CODING THEREFOR, EXPRESSION VECTOR,  
MICROORGANISMS AND TRANSFORMED CELLS

SUBMISSION OF FORMAL DRAWINGS

The Honorable Commissioner of  
Patents and Trademarks  
Washington, D.C. 20231

Sir:

Applicants submit herewith fifteen (15) sheets  
of formal drawings for this case.

Respectfully submitted,

  
\_\_\_\_\_  
Bernhard D. Saxe  
Registration No. 28,665

August 31, 1994  
Date

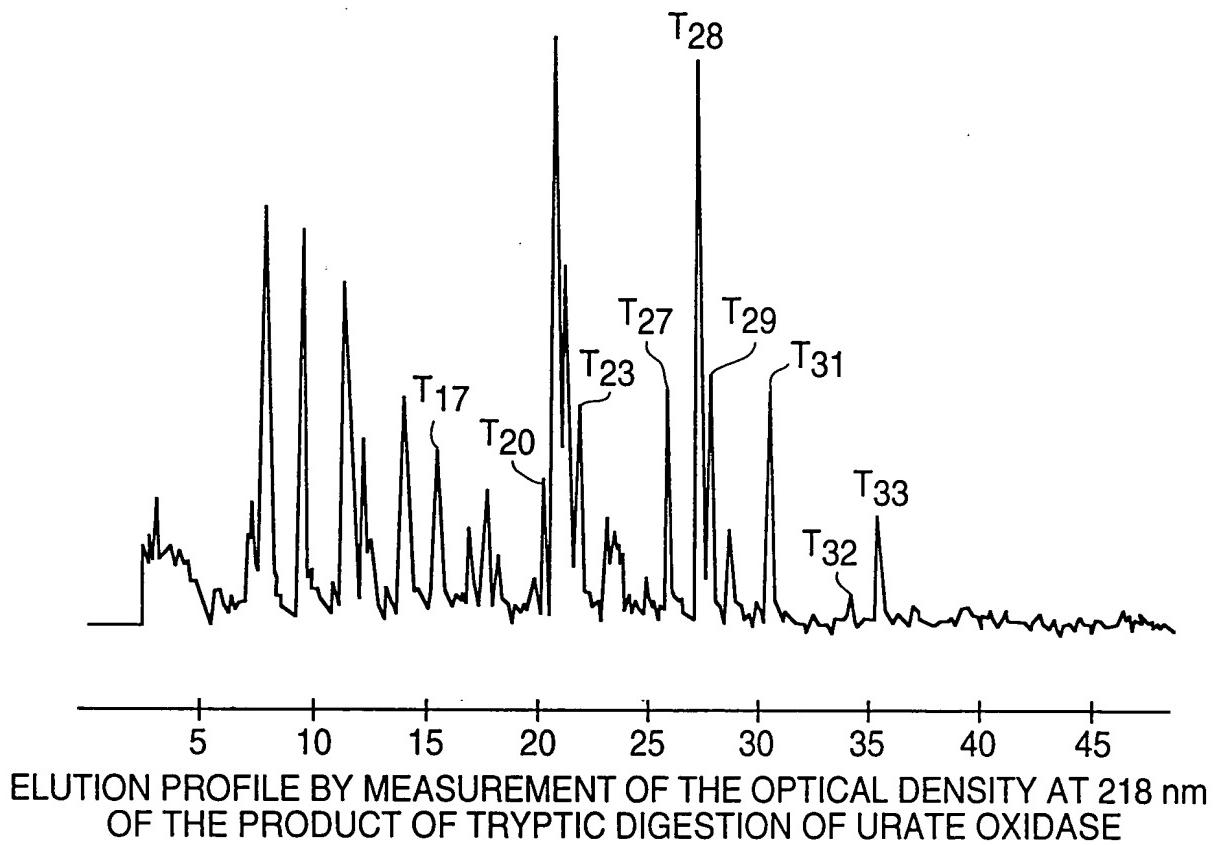
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07/920,519

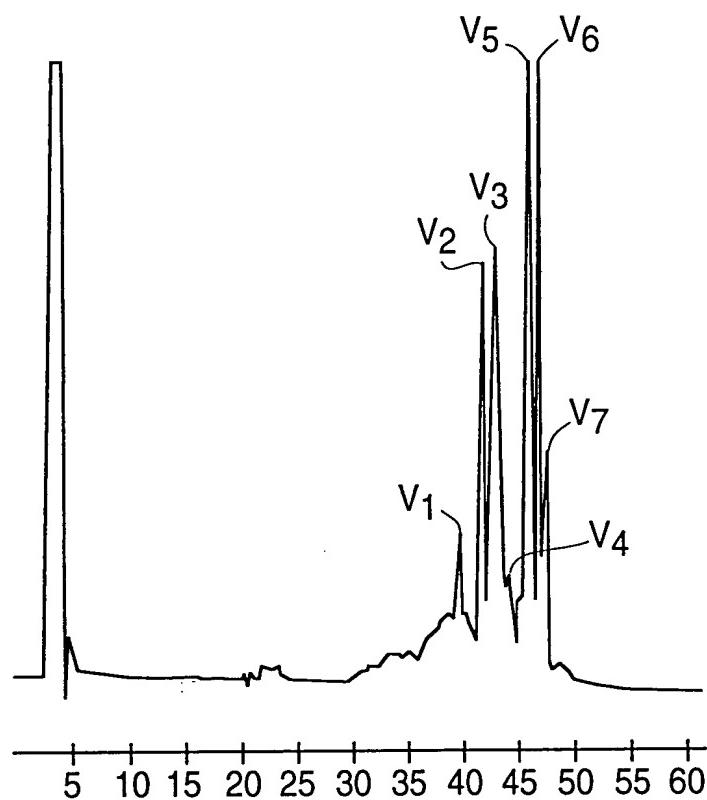
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REF ID: A7114  
FIG. No. 1  
BY J. S. STERK  
435/91

**FIG. 1**



**FIG. 2**



ELUTION PROFILE BY MEASUREMENT OF THE OPTICAL DENSITY AT 218 nm  
OF THE PRODUCT OF DIGESTION OF URATE OXIDASE WITH PROTEASE V8

### FIG. 3

1	AAACCTCACTGCCCTCTCATTCCTTCCG	GTGCCCCCGATCCTCAATCCAACCTGGTACA	60
61	TACTTCTCCCAACTCTGCTATATCCTTC	ATATTCCCATACTACAAGATGTCGGCAGTA	120
121	AAAGCAGCCCCGCTACGGCAAGGACAATGTC	CGCGTCTACAAGGTTACAAGGACGGAGAAG	180
181	ACCGGTGTCCAGACGGGTACGGAGATGACC	GTCTGTGTGCTTCTGGAGGGTAGATTGAG	240
241	ACCTCTTACACCAAGGGCGACAAACGGGTC	ATTGTGGCAACCCGACTCCATTAAAGAACACC	300
301	ATTACATCACGCCAAGCAGAACCCCCGTT	ACTCCTCCCCGAGCTGTTCGGCTCCATCCTG	360
361	GGCACACACTTCATTGAGAAGTACAAACCAC	ATCCATGGCCGCTCACGTCAACATTGTCCTGC	420
421	CACCGCTGGACCCGGATGGACATTGACGGC	AAGCCACACCCCTCACTCCTCATCCGGAC	480
481	AGCGAGGGAGGGAAATGTCAGGTGGAC	GTGGTGGAGGGCAAGGGCATCGATAATCAAG	540
541	TCGTCTCTGTCCGGCCCTGACCGTGCTGAAG	AGCACCAACTCGCAGTTCTGGGGCTTCCTG	600
601	CGTGACGGAGTACACCACAGTTAAGGAGACC	TGGGACCCGTATCCTGAGCACCGACGTGCGAT	660
661	GCCACTTGGCAGTGGAGAATTTCAGTGGA	CTCCAGGAGGTCCGCTCGCACGTGCCCTAAG	720
721	TTCGATGCTACCTGGCCACTGCTCGCGAG	GTCACCTCTGAAGACTTTTGCTGAAGATAAC	780
781	AGTGCCAGCGTGCAGGCCACTATGTACAAG	ATGGCAGAGCAAATCCTGGCGGCCAGCAG	840
841	CTGATCGAGACTGTGGAGTACTCGTTGCCCT	AACAAGCACTATTTCGAAATCGACCTGAGC	900
	G*		
901	TGGCACAAAGGGCCTCCAAAACACGGCAAG	AACGCCAGGGTCTTCGCTCAGTCGGAC	960
961	CCCAACGGTCTGATCAAGTGTACCGTGGC	CGGTCCCTCTCTGAAGTCTAAATTGTAAACC	1020
1021	ACATGATTCTCACGGTTCGGAGTTCCAA	GGCAAACCTGTATATAAGTCTGGGATAGGGTA	1080
1081	TAGCATTCACTCACTTGTGTTACCTCCA	AAAAAAA... .	

NUCLEOTIDE SEQUENCE OF CLONE 9C AND OF PART OF CLONE 9A

: START OF CLONE 9A



**FIG. 4A**

109 ATGTCCCCAGTAAAAGCAGCCCCCTACGGC 1 MetSerAlaValLysAlaAlaArgTyrGly	AAGGACAATGTCCGGCTACAAGGGTTCAC 168 LysAspAsnValArgValTyrlLysValHis 20
169 AAGGACAGAGAACCGGGTGTCCAGACGGTG 21 LysAspGluLysThrGlyValGlnThrVal	TACCGAGATGACCCGTCCTGTGCTTCGGAG 228 TyrglumetThrValCysValLeuLeuGlu 40
229 GGTGAGATTGAGACCTTACACCAAGGCC 41 GlyGluIleGluThrSerTyrlThrAlaLys	GACAAACAGGGTCATTGTCGCAACCGACTCC 288 AspAsnSerValIleValAlaThrAspSer 60
289 ARTAAGAACACCATTACATCACCGCCAAAG 61 IleLysAsnThrIleTyrlIleTyrlAlaLys	CAGAACCCCCGTTACTCCATGCCGAGCTGTC 348 GlnAsnProValThrProProGluLeuPhe 80
349 GGCTCCCATCCTGGGCACACACTTCATTGAG 81 GlySerIleLeuGlyThrHisPheIleGlu	T32/T33
409 AACATTGTCTGCCAACACACTTCATTGAG 101 AsnIleValCysHisArgTrpThrArgMet	AAGTACAAACACATCCATGCCGCTCACCGTC 408 LysTyrlAsnHisIleHisAlaAlaHisVal 100
469 TTCAATCCGGACAGCGAGGAAGCGGAAT 121 PheIleArgAspSerGluGluLysArgAsn	GACATTGACGGCAAGGCCACACCCCTCACCTCC 468 AspIleAspGlyLysProHisProHisSer 120
529 ATCGATATCAAGTCGTCTCTGGACGGCCTG 141 IleAspIleLysSerSerLeuSerGlyLeu	GTGCAGGGTGGACGTTGGAGGGCAAGGGC 528 ValGlnValAspValValGluGlyLysGly 140
589 TGGGGCTTCCTGGGTGACGGAGTACACCA 161 TrpGlyPheLeuArgAspGluTyrlThrThr	T17
649 ACCGACGGTCGATGCCACCTGGCAGTGGAAAG 181 ThrAspValAspAlaThrTrpGlnTrpLys	ACCGTGGCTGAAGGCCAACACTCGCAGTTC 588 ThrValLeuLeuLysSerThrAsnSerGlnPhe 160
	T31
	CTTAAGGGAGACCTGGGACCCGATCCCTGAGC 648 LeuLysGluThrTrpAspArgIleLeuSer 180
	T28
	T20

↓ TO FIG. 4B ↓

↓ TO FIG. 4B ↓

## FIG. 4B

↑ FROM FIG. 4A

FROM FIG. 4A†

709 CACGTGCCTAACGTTCGATGCTACCTGGCC	ACTGCTCGGAGGTCACTCTGAAGACTTT	768
201 HisValProLysPheAspAlaThrTrpAla	ThrAlaArgGluValThrLeuLysThrPhe	220
T23		
769 GCTGAAGATAAACAGTGCCAGCGTGAGGCC	ACTATGTCACAAGATGGCAGAGCAAATCCTG	828
221 AlaGluAspAsnSerAlaSerValGlnAla	ThrMetTyrLysMetAlaGluGlnIleLeu	240
V2		
829 GCGGCCAGCAGCTGATCGAGACTGTCGAG	TACTCGTTGCCTAACAAAGCACTATTTCGAA	888
241 AlaArgGlnGinLeuIleGluThrValGlu	TyrSerLeuProAsnLysHistYrPheGlu	260
T27		
889 ATCGACCTGAGCTGGCACAAAGGGCCTCCAA	AACACCGGCAAGAACGCCGAGGTCTTCGCT	948
261 IleAspLeuIleSerTrpHisLysGlyLeuGln	AsnThrGlyLysAsnAlaGluValPheAla	280
T27		
949 CCTCAGTCGGACCCCAACGGTCTGATCAAG	TGTACCGTGGCCGGTCTCTGAAGTCT	1008
281 ProGlnSerAspProAsnGlyLeuIleLys	CysThrValIgLyArgSerSerLeuLysSer	300
T27		
1009 AAATTGTAA		
301 LysLeuEnd		

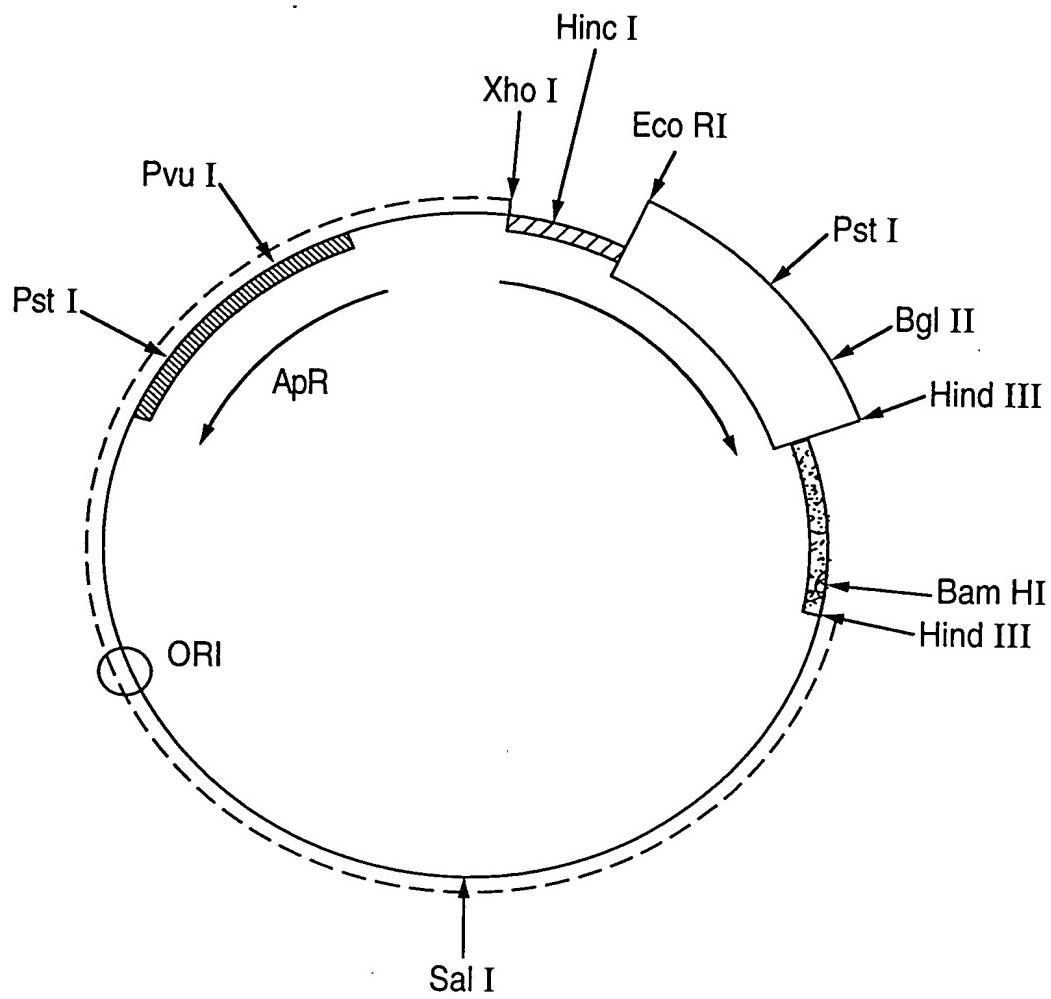
DNA SEQUENCE OPENED BY ATG IN POSITION 109 IN FIGURE 3

AND POLYPEPTIDE CODED FOR.

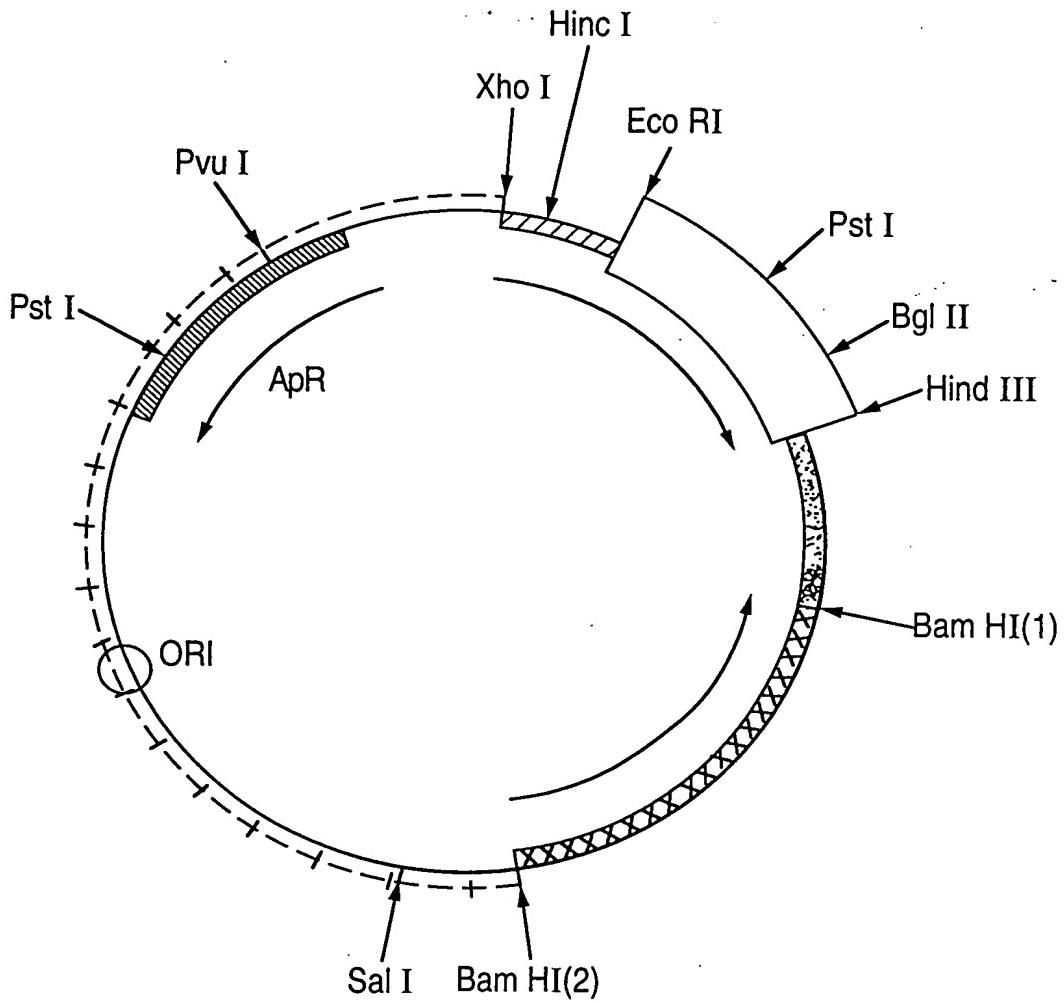
THE SEQUENCED PEPTIDES OBTAINED BY HYDROLYSIS OF A. FLAVUS URATE OXIDASE WITH TRYPSIN AND PROTEASE V8 ARE SHOWN BY ARROWS OPPOSITE THE POLYPEPTIDE CODED FOR, ACCORDING TO

TRYPTIC PEPTIDE  
↔  
PEPTIDE OBTAINED BY HYDROLYSIS WITH  
PROTEASE V8.

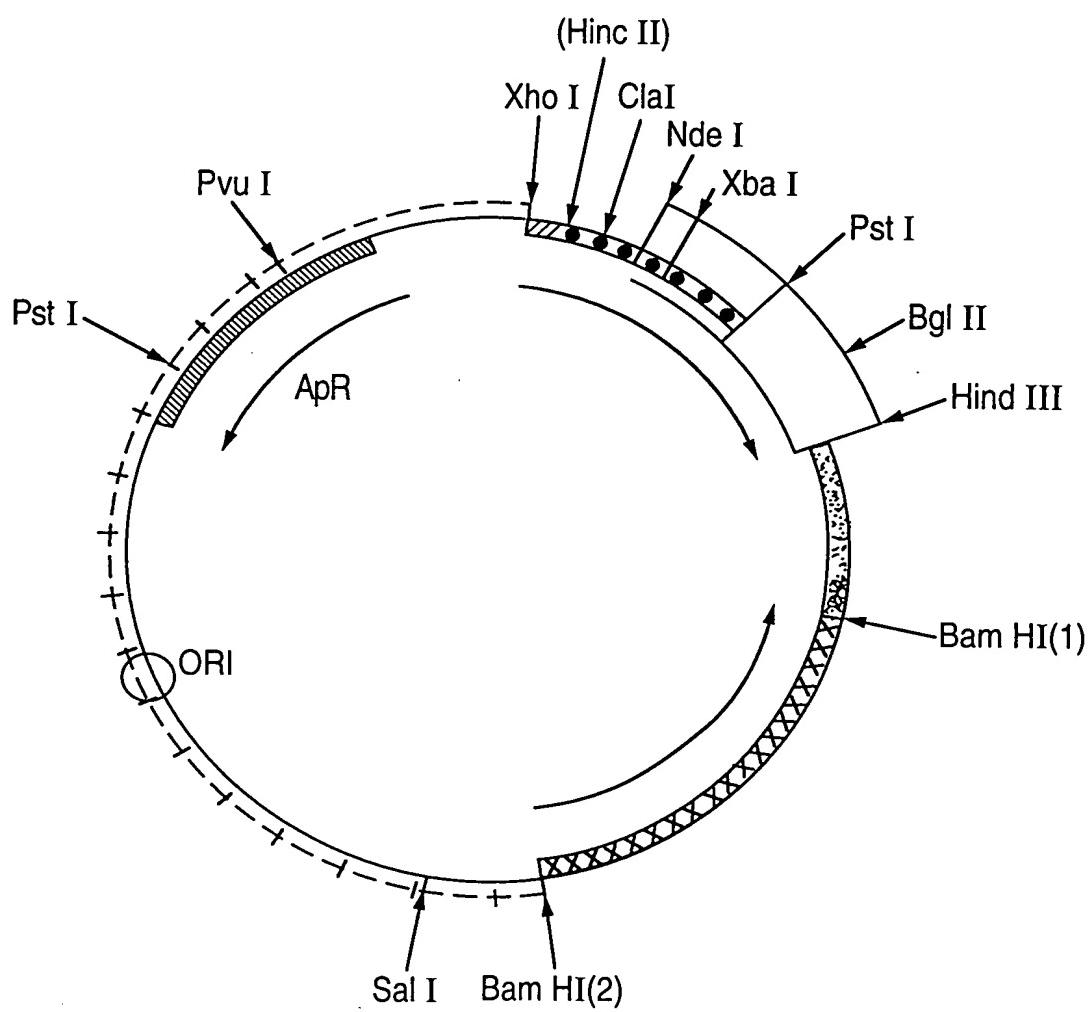
**FIG. 5**



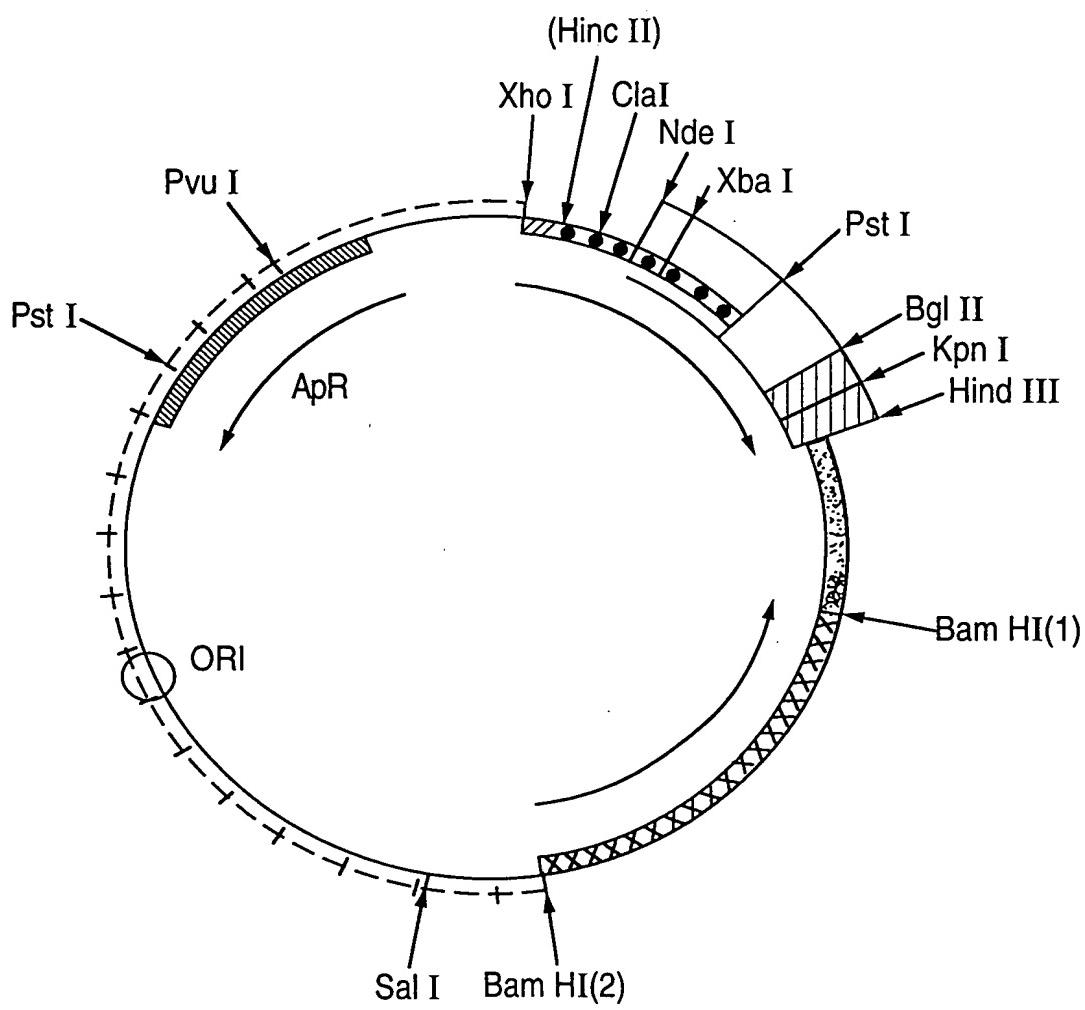
**FIG. 6**



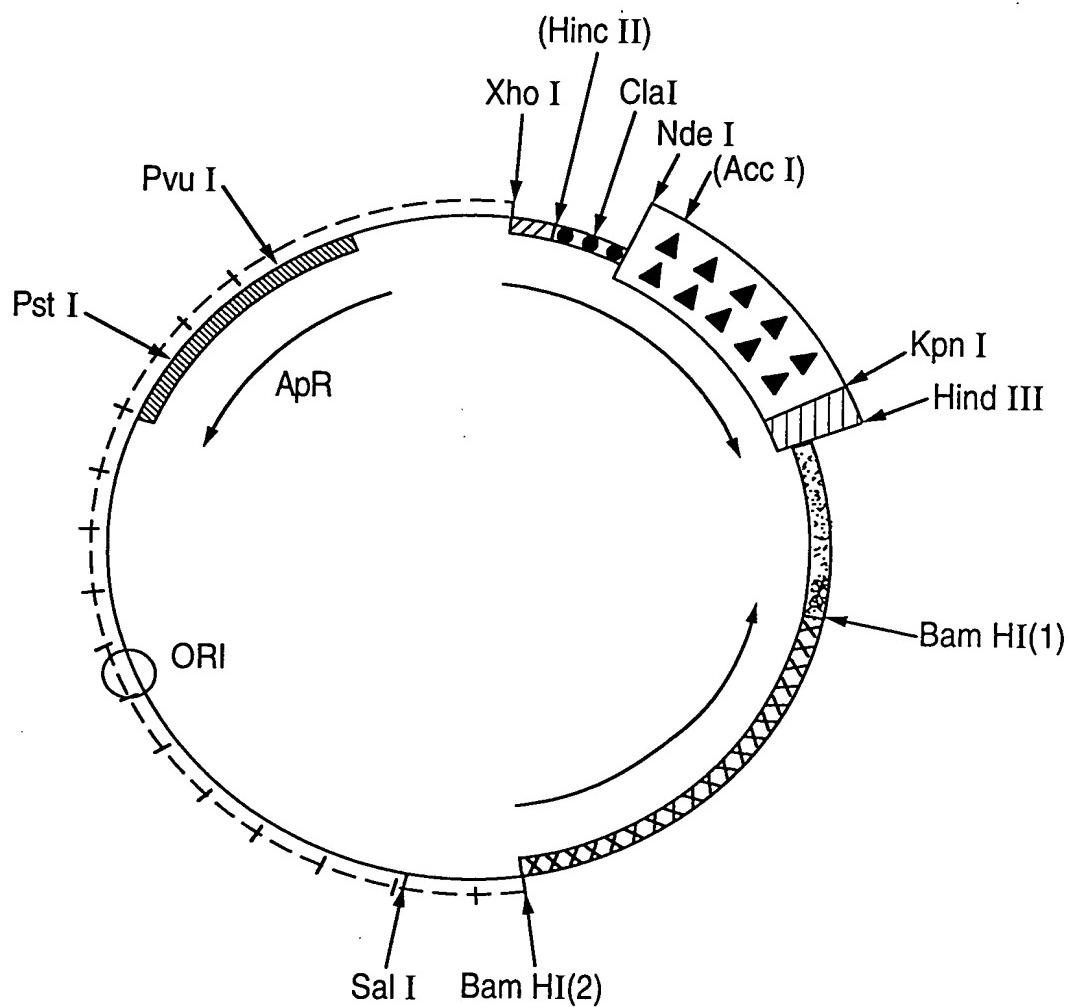
**FIG. 7**



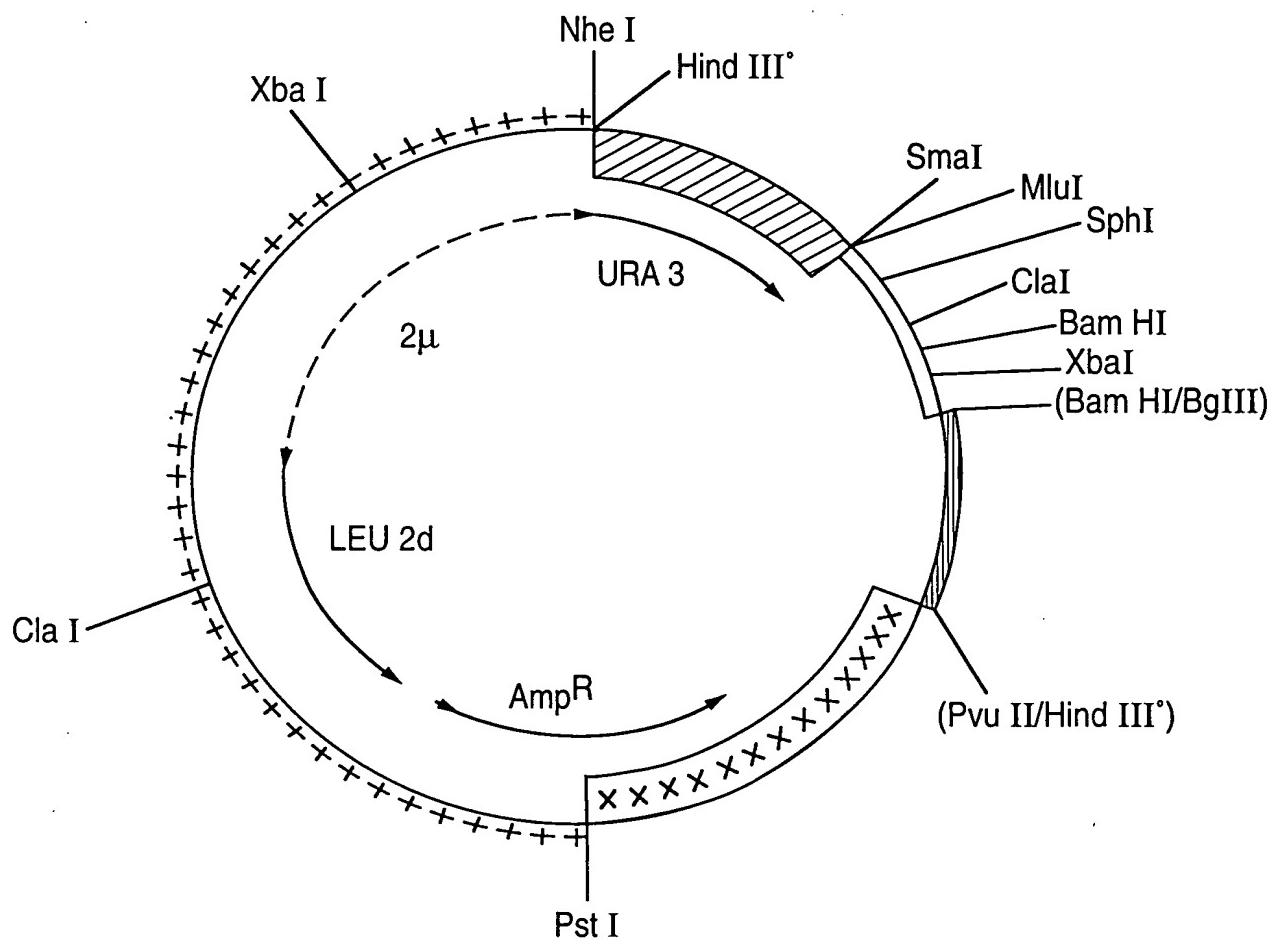
**FIG. 8**



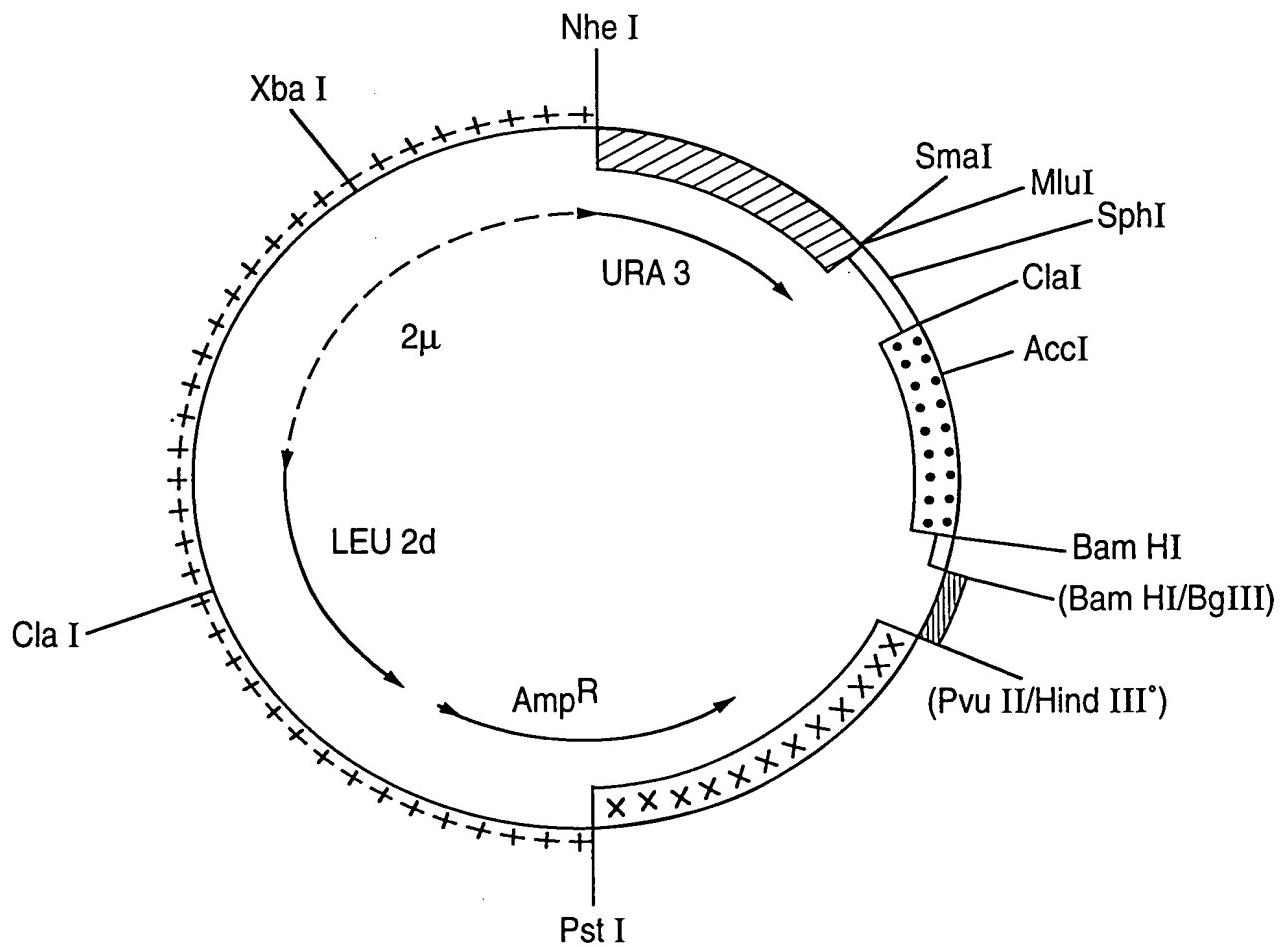
**FIG. 9**



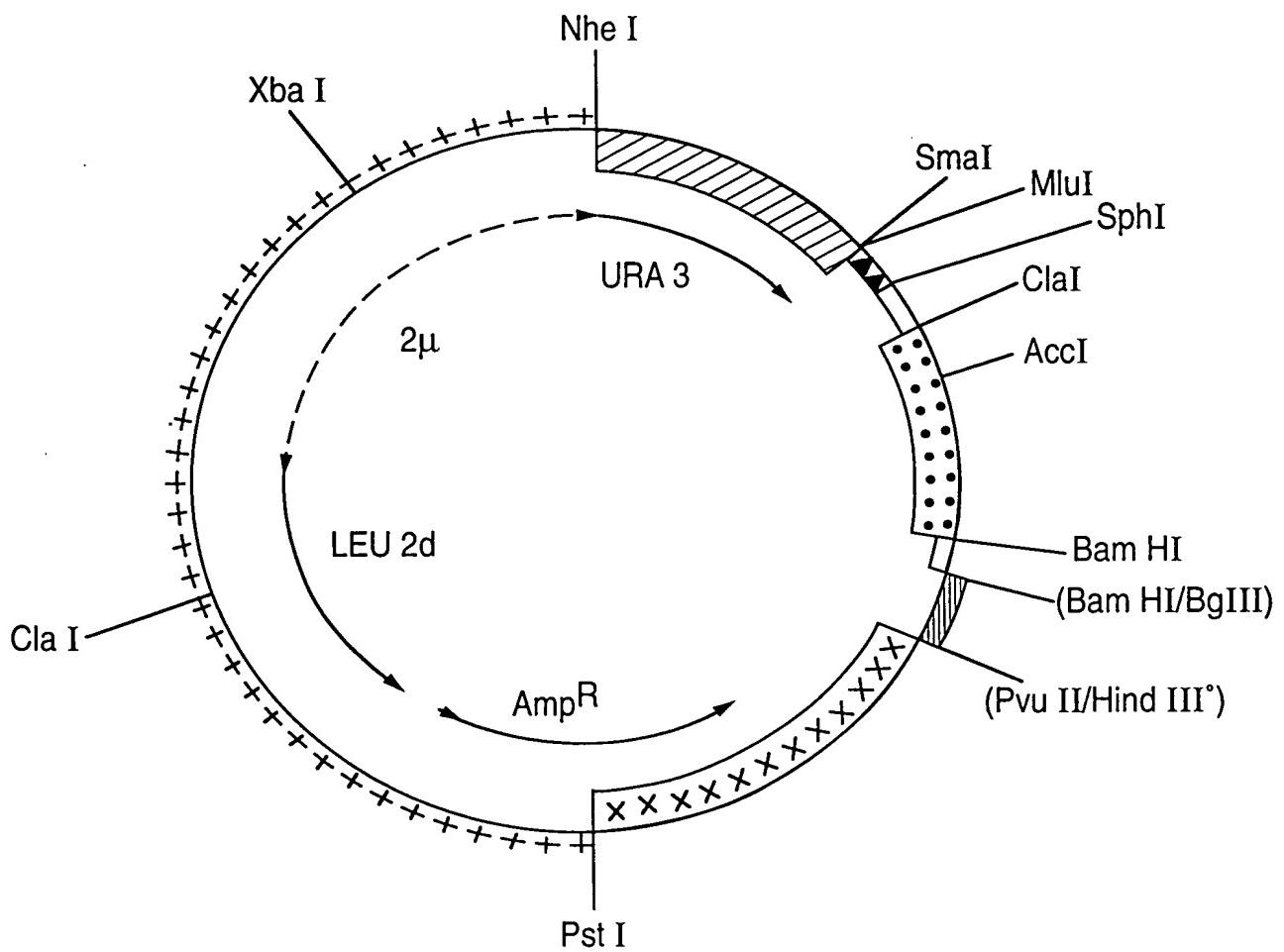
**FIG. 10**



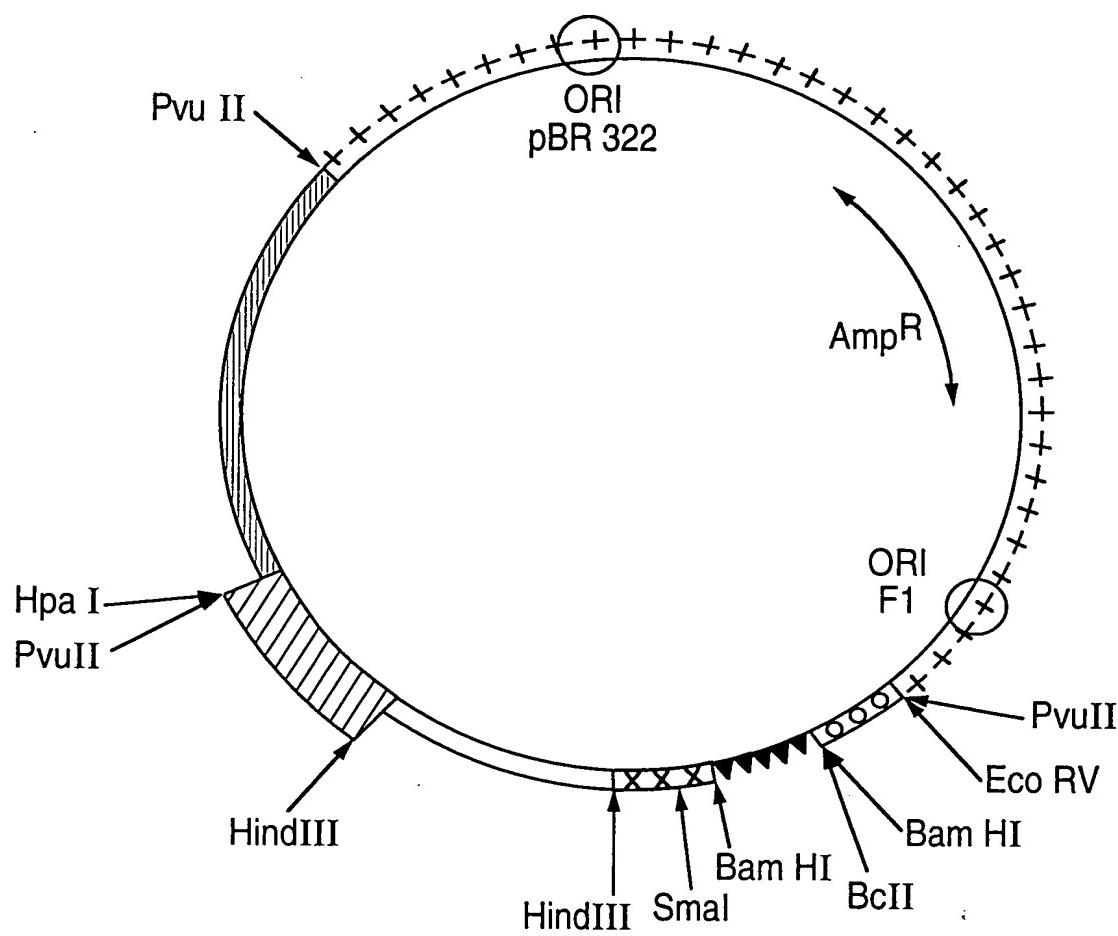
**FIG. 11**



**FIG. 12**



**FIG. 13**



**FIG. 14**

